

### **REMARKS/ARGUMENTS**

The Office Action of May 10, 2006, has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 81-98 have been added. Claims 1-80 have been canceled without prejudice or disclaimer. Claims 81-98 remain pending.

Applicants note that the present application should properly be identified as a continuation application of the parent patent, U.S. Patent No. 6,766,316. Currently the present matter is identified as a divisional application to the parent patent. During prosecution of the parent patent, Examiner Alford Kindred called the attorney of record, Mr. Ross Dannenberg, on September 29, 2003. During that telephone call, Examiner Kindred requested Mr. Dannenberg to orally elect a group of claims as he was prepared to restrict the claims to two separate groups; Group I as claims 1-53 and 59-69 and Group II as claims 54-58. Mr. Dannenberg orally elected the claims of Group I. However, Applicants note that the record in the parent patent fails to show the actually restriction requirement by the Examiner. As such, Applicants hereby change the designation of the present application to a continuation of the parent patent. The new designation is reflected in the Application Data Sheet filed concurrently herewith.

Claims 54-58 and 70-74 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-63 of U.S. Patent No. 6,766,316. Although Applicants have canceled claims 54-58 and 70-80, Applicants' new claims 81-85, 87-91, and 93-98 are previous claims 54-58 and 70-80 in computer readable media form. In response and without acquiescing to the rejection, Applicants submit concurrently herewith a Terminal Disclaimer rendering moot the obviousness-type double patenting rejection. A fee in the amount of \$130.00 is submitted herewith for the Terminal Disclaimer fee.

Claims 54-58 and 70-80 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Without acquiescing to the rejection, Applicants have canceled claims 54-58 and 70-80 and added new claims 81-98. Applicants' new claims 81-85, 87-91, and 93-98 are previous claims 54-58 and 70-80 in computer readable media form. Applicants' new claims

81-98 are fully supported by Applicants' original written description and drawings. No new matter has been added. As such, withdrawal of the present rejection is respectfully requested.

Claims 54-56 and 70-72 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Call (U.S. Published App. No. 2002/0143521, hereinafter referred to as *Call*) in view of Maarek et al. ("Emphemeral Document Clustering for Web Applications," IBM Research Report, RJ 10186, April 2000, hereinafter referred to as *Maarek*). Claims 57-58 and 73-74 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Call* in view of *Maarek* and further in view of Liddy et al. (U.S. Patent No. 5,873,056, hereinafter referred to as *Liddy*). Claims 75-80 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Call* in view of *Maarek* in view of *Liddy* and further in view of Dorocak (Dorocak et al. "Conditional Syntactic Specification," Proceedings of the Annual Conference, August 1973, pages 101-105, hereinafter referred to as *Dorocak*). Applicants respectfully traverse.

In order to establish a *prima facie* case of obviousness under § 103(a), three criteria must exist: 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings; 2) there must be a reasonable expectation of success; and 3) the prior art reference(s) must teach or suggest all the claim limitations. See MPEP § 706.02 (j); *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

With respect to the third criteria, the combination of *Call* and *Maarek* fails to teach or suggest each and every feature of Applicants' claim 81. Applicants' new claim 81 recites, among other features, "identifying at least one predicate and argument in said set of document predicate structures" (emphasis added). Under the *Call* system, "a sequence of one or more integers is used to represent the character data in natural language text, including the natural language text data in XML document." (P. 5, para. [0068]). *Call* fails to describe identifying at least one predicate and argument in a set of document predicate structures.

In addition, *Call* fails to teach or suggest Applicants' claim 81 feature of, "estimating conceptual nearness of two of said document predicate structures in said set of document predicate structures by subtracting corresponding ones of said predicate keys." *Call* describes

how ordered collections of items called “sets” may be created by query (filter) mechanisms and stored. (P. 5, para. [0071] and p. 1, para. [0117]). In rejecting this feature, the Action fails to provide any evidence within *Call* or any other reference and merely states that, “it is inherent in Call’s method that conceptual nearness is obtained by subtracting corresponding one of predicate keys.” (Action, p. 6). With respect to *Call*, paragraph [0117] on page 11, as cited in the Action, provides numerous manners to generate a set of items. As described, all items of the same item type may be collected in one set, or may be collected based upon a common attribute. (P. 11, para. [0117]). The same paragraph [0117] states that, “[t]hese and other features of sets, and the mechanisms provided to create, sort, combine and process the members of such sets, will be described in more detail later.”

However, none of the remaining paragraphs of *Call* or any other portion describes Applicants’ feature of “estimating conceptual nearness of two of said document predicate structures in said set of document predicate structures by subtracting corresponding ones of said predicate keys.” In fact, subtraction of integers are not described at all in *Call*. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, (Fed. Cir 1993). “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). See MPEP section 2112. Therefore, absent rationale or evidence tending to show inherency, it is not inherent in *Call*’s method that conceptual nearness is obtained by subtracting corresponding one of predicate keys as expressed in the Action. If such an inherency argument is maintained, Applicants respectfully request evidence to support such a contention.

Still further, as admitted by the Action, “Call does not explicitly disclose that those data elements/concepts are of at least one predicate and an argument and that vectorizing is employed using those integers.” (Action, page 5). In rejecting these features, the Action relies on various portions of *Maarek*. *Maarek* fails to cure the deficiencies of *Call*.

The cited portions of *Maarek* describe an indexing unit that can be a single term, complex form, or lexical constructs (p. 5, para. 4) and a lexical affinity (p. 7, last para. To p. 8, first para.). However, neither the cited portions nor any other portion of *Maarek* describes “identifying at least one predicate and argument in said set of document predicate structures.” *Maarek*, like *Call*, describes processing of natural language text, not identification and estimation based upon document predicate structures. As such, the combination of *Call* and *Maarek* fails to teach or suggest each and every feature of Applicants’ claim 81.

Applicants’ new claim 87 includes similar features as recited above with respect to Applicants’ claim 81. As such, claim 87 is allowable over the combination of *Call* and *Maarek* for at least similar reasons as stated above with respect to claim 81.

Dependent claims 82-83 and 88-89, which depend from claims 81 and 87, are allowable over the art of record for at least the same reasons as described above with reference to their ultimate base claim and further in view of the novel features recited therein. For example, Applicants’ claim 86 recites, among other features, “wherein said set of document predicate structures are representations of logical relationships between words in a sentence.” As described in Applicants’ original written description, “[p]redicate structures are representations of logical relationships between the words in a sentence. Every predicate structure contains a predicate, which consists of either a verb or a preposition, and a set of arguments, each of which may be any part of speech.” (Applicants’ original written description, p. 13, ll. 3-7). *Maarek*, like *Call*, fails to teach or suggest such a feature.

*Liddy* fails to cure the deficiencies of *Call* and *Maarek* as noted above with respect to Applicants’ claims 81 and 87. As such, Applicants’ claims 84-85 and 90-91, which depend from claims 81 and 87, are allowable over the combination of references for at least the same reasons as their ultimate base claim and further in view of the novel features recited therein.

Applicants’ new claim 93 includes similar features as recited above with respect to Applicants’ claims 81 and 87. *Dorocak* fails to cure the deficiencies of *Call*, *Maarek*, and *Liddy*, as described above with respect to Applicants’ claims 81-92. As such, claim 93 is allowable over the combination of references for at least similar reasons as stated above with respect to

claims 81-92. In addition, Applicants' new claim 93 recites, among other features, "determining a fixed number of arguments  $q$  for vector construction." For support in rejecting this feature, the Action cited page 104 of *Dorocak* and states that this feature is "specified in [the] corresponding definition" (Action, p. 10). However, with respect to arguments, the "definition" in *Dorocak* merely states modifying "the specifications relating to the correspondence between the number of arguments in a procedure reference and the number of parameters in a procedure definition." (*Dorocak*, p. 104). Neither the cited portion nor any other portion of *Dorocak* recites Applicants' claim 93 feature of, "determining a fixed number of arguments  $q$  for vector construction." As such, Applicants' claim 93 is patentably distinct over the art of record for at least this additional reason.

Applicants' claims 94-98, which depend from claim 93, are allowable over the combination of references for at least the same reasons as their ultimate base claim and further in view of the novel features recited therein.

**CONCLUSION**

All rejections having been addressed, Applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicits prompt notification of the same. Should the Examiner find that a telephonic or personal interview would expedite passage to issue of the present application, the Examiner is encouraged to contact the undersigned attorney at the telephone number indicated below. If any additional required fees are or if an overpayment has been made the Commissioner is authorized to charge or credit Deposit Account No. 19-0733. Applicants look forward to passage to issue of the present application at the earliest convenience of the Office.

Respectfully submitted,  
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